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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/813,937   | 03/31/2004  | Heiner Pitz          | 600.1306                      | 7474             |
| 23280  | 7590        | 07/13/2005           |                               |                  |
| DAVIDSON, DAVIDSON & KAPPEL, LLC<br>485 SEVENTH AVENUE, 14TH FLOOR<br>NEW YORK, NY 10018 |             |                      |                               |                  |
|  |             |                      | EXAMINER<br>WILLIAMS, KEVIN D |                  |
|  |             |                      | ART UNIT<br>2854              | PAPER NUMBER     |
| DATE MAILED: 07/13/2005  |             |                      |                               |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

10/813,937

Applicant(s)

PITZ ET AL.

Examiner

Kevin D. Williams

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3 and 6-8 is/are allowed.
- 6) ☒ Claim(s) 1,4,5,9,10 and 12-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/28/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being unpatentable over Wilbur (US 2004/0189769) in view of Jung (US 2003/0066452).

Wilbur teaches a method for drying a printing ink on a printing substrate in a printing device comprising the steps of using at least one printing ink to print 16 on the printing substrate at a first position of a path, the printing substrate being moved along the path through the printing device, applying a treatment agent (heat applied directly to medium before printing; [0039]; clm. 39) at a second position of the path on the printing substrate to accelerate drying of the printing ink on the printing substrate, the applying of the treatment agent at the second position occurring before the printing at the first position (clm. 39), the substrate being dried by a radiant energy [0039] at a chronologically later point in time from the using and applying steps at at least one third position of the path.

Wilbur discloses an ink jet printing device and therefore does not disclose the method of printing in a printing press.

Jung discloses a method of printing in a printing press including radiant energy devices used for drying the printed ink.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wilbur to have the drying arrangement in a printing press as taught by Jung, in order to increase the speed at which the printed ink dries.

3. Claims 9 and 10 are rejected under 35 U.S.C. 102(e) as being unpatentable over Jung (US 2003/0066452) in view of Wilbur (US 2004/0189769)

With respect to claims 9 and 10, Jung teaches a printing device comprising at least one printing unit 1 at a first position along a path of a printing substrate through the printing device, at least one drying device 8 at a third position along the path downstream from the print unit for supplying energy to the printing substrate, wherein at one further second position upstream from the drying device, the printing press includes a conditioning apparatus for applying a treatment agent 7 accelerating drying of the printing ink on the printing substrate at the third position, where the conditioning apparatus is designed to allow an application of the treatment agent from both sides onto the printing substrate (Fig. 2).

Jung does not describe the drying device and therefore does not teach the drying device including at least one narrow-band radiant energy source emitting light of one wavelength in the near infrared region.

Wilbur teaches a drying device including at least one narrow-band radiant energy source emitting light of one wavelength in the near infrared region [0036].

Art Unit: 2854

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jung to have the drying device as taught by Wilbur, in order to increase the drying speed of the printed ink.

4. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doberenz (US 2003/0071863) in view of Jung (US 2003/0066452).

Doberenz teaches a method for drying a printing ink on a printing substrate in a printing device comprising the steps of using at least one printing ink to print on the printing substrate at a first position of a path, the printing substrate being moved along the path through the printing device, applying a treatment agent [0028] at a second position of the path on the printing substrate to accelerate drying of the printing ink on the printing substrate, the applying of the treatment agent at the second position occurring before the printing at the first position [0028].

Doberenz teaches an ink jet printing device and therefore does not disclose the method of printing in a printing press, where the treatment agent includes a siccativ solution, an alkaline solution, or a binding agent.

Jung discloses a method of printing in a printing press including a device used for drying the printed ink, where the treatment agent includes a siccativ solution, an alkaline solution, or a binding agent (inherently includes a binding agent to bind the mixture).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Doberenz to have the drying arrangement in a printing press as taught by Jung, in order to increase the speed at which the printed ink dries.

5. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung in view of Wilbur as applied to claims 9 and 10 above and further in view of Rodi (US 5,115,741).

Jung in view of Wilbur teaches the claimed invention and a heating device 8, but does not provide a discussion of the particular type of heating device used, therefore Jung does not expressly disclose the printing substrate being dried by action of radiant energy, the radiant energy source being a laser light source, the laser light source being a semiconductor laser, a gas laser, or a solid-state laser, the light incident to the printing substrate at one position being controllable in its intensity and exposure duration for each radiant energy source independently of the other radiant energy sources, the drying device having a plurality of radiant energy sources arranged in a one-dimensional field, a two-dimensional field, or a three-dimensional field with light striking the printing substrate at a number of positions, and a drying device including at least two radiant energy sources and the light from at least two radiant energy sources being incident to the printing substrate at one position.

Rodi teaches a printing substrate being dried by action of radiant energy 15, at least one narrow-band radiant energy source 15 being a laser light source and emitting light of one wavelength in the near infrared region, the laser light source being a semiconductor laser, a gas laser, or a solid-state laser 15, the drying device having a plurality of radiant energy sources (Fig. 3; 15) arranged in a one-dimensional field, a two-dimensional field, or a three-dimensional (fig. 3) field with light striking the printing substrate at a number of positions, the light incident to the printing substrate at one

Art Unit: 2854

position being controllable in its intensity and exposure duration for each radiant energy source independently of the other radiant energy sources (col. 5, lines 12-20), and the drying device including at least two radiant energy sources and the light from at least two radiant energy sources being incident to the printing substrate at one position (Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Jung to have the radiant energy device as taught by Rodi, in order to provide sufficient heat to the printed substrate to effectively dry to printed ink.

***Allowable Subject Matter***

6. Claims 2, 3, 6, 7, and 8 are allowed.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2854

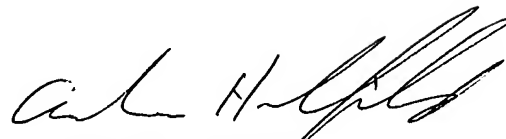
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (571) 272-2172. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDW  
July 11, 2005

  
ANDREW H. HIRSHFELD  
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